

## ABSTRACT

Provided is a method of forming a metal line of a semiconductor device, comprising the steps of forming an interlayer insulating film on a semiconductor substrate, forming a metal line shaped pattern by etching the interlayer insulating film, forming a diffusion stopper film in conformity with the whole surface of a resultant object in which the metal line shaped pattern is formed, forming a copper film on the diffusion stopper film, forming a copper metal line by chemically and mechanically polishing the copper film and the diffusion stopper film above the interlayer insulating film, attaching a titanium metal or a ruthenium metal to only the copper metal line selectively, and annealing the attached titanium metal or ruthenium metal.